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10003

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Autonomous Agents and Multiagent Systems

AAMAS 2016 Workshops, *Visionary Papers*
Singapore, Singapore, May 9–10, 2016
Revised Selected Papers

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ISSN 0302-9743 ISSN 1611-3349 (electronic)
Lecture Notes in Artificial Intelligence
ISBN 978-3-319-46839-6 ISBN 978-3-319-46840-2 (eBook)
DOI 10.1007/978-3-319-46840-2

Library of Congress Control Number: 2016952511

LNCS Sublibrary: SL7 – Artificial Intelligence

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Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

AAMAS is the leading scientific conference for research in autonomous agents and multiagent systems, which is annually organized by the non-profit organization the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS). The AAMAS conference series was initiated in 2002 by merging three highly respected meetings: the International Conference on Multi-Agent Systems (ICMAS); the International Workshop on Agent Theories, Architectures, and Languages (ATAL); and the International Conference on Autonomous Agents (AA).

Besides the main program, AAMAS hosts a number of workshops, which aim at stimulating and facilitating discussion, interaction, and comparison of approaches, methods, and ideas related to specific topics, both theoretical and applied, in the general area of autonomous agents and multiagent systems. The AAMAS workshops provide an informal setting where participants have the opportunity to discuss specific technical topics in an atmosphere that fosters the active exchange of ideas.

This book compiles the most visionary papers of the AAMAS 2016 workshops. In total, AAMAS 2016 ran 16 workshops. To select the most visionary papers, the organizers of each workshop were asked to nominate two papers from their workshop and send those papers, along with the reviews they received during their workshop's review process, to the AAMAS 2016 workshop co-chairs. The AAMAS 2016 workshop co-chairs then studied each paper carefully, in order to assess its quality and whether it was suitable to be selected for this book. One paper was selected from each workshop, although not all workshops were able to contribute. The result is a compilation of 12 papers selected from 12 workshops, which we list below.

- The 18th International Workshop on Trust in Agent Societies (Trust 2016)
- The First International Workshop on Security and Multiagent Systems (SecMAS 2016)
- The 6th International Workshop on Autonomous Robots and Multirobot Systems (ARMS 2016)
- The 7th International Workshop on Optimization in Multiagent Systems (OptMAS 2016)
- The Second International Workshop on Issues with Deployment of Emerging Agent-Based Systems (IDEAS 2016)
- The 17th International Workshop on Multi-Agent-Based Simulation (MABS 2016)
- The 4th International Workshop on Engineering Multiagent Systems (EMAS 2016)
- The 14th International Workshop on Adaptive Learning Agents (ALA 2016)
- The 9th International International Workshop on Agent-Based Complex Automated Negotiations (ACAN 2016)
- The First International Workshop on Agent-Based Modelling of Urban Systems (ABMUS 2016)

- The 21st International Workshop on Coordination, Organization, Institutions and Norms in Agent Systems (COIN 2016), with a special joint session with the 7th International Workshop on Collaborative Agents Research and Development: CARE for Digital Education (CARE 2016)
- The 15th International Workshop on Emergent Intelligence on Networked Agents (WEIN 2016)

We note that a similar process was carried out to select the best papers of the AAMAS 2016 workshops. While visionary papers are papers with novel ideas that propose a change in the way research is currently carried out, best papers follow the style of more traditional papers. The selected best papers may be found in the Springer LNAI 10002 book.

Revised and selected papers of the AAMAS workshops have been published in the past (see Springer's LNAI Vol. 7068 of the AAMAS 2011 workshops). Despite not publishing such books regularly for the AAMAS workshops, there has been a clear and strong interest on other occasions. For instance, publishing the "best of the rest" AAMAS workshops volume has been discussed with Prof. Michael Luck, who was enthusiastic concerning AAMAS 2014 in Paris. This book, along with Springer's LNAI 10002 volume, aim at presenting the most visionary papers and the best papers of the AAMAS 2016 workshops. The aim of publishing these books is essentially to better disseminate the most notable results of the AAMAS workshops and encourage authors to submit top-quality research work to the AAMAS workshops.

July 2016

Nardine Osman
Carles Sierra

Organization

AAMAS 2016 Workshop Co-chairs

Nardine Osman	Artificial Intelligence Research Institute, Spain
Carles Sierra	Artificial Intelligence Research Institute, Spain

AAMAS 2016 Workshop Organizers

Trust 2016

Jie Zhang	Nanyang Technological University, Singapore
Robin Cohen	University of Waterloo, Canada
Murat Sensoy	Ozyegin University, Turkey

SecMAS 2016

Debarun Kar	University of Southern California, CA, USA
Yevgeniy Vorobeychik	Vanderbilt University, TN, USA
Long Tran-Thanh	University of Southampton, Southampton, UK

ARMS 2016

Noa Agmon	Bar-Ilan University, Israel
Alessandro Farinelli	University of Verona, Italy
Manuela Veloso	Carnegie Mellon University, USA
Francesco Amigoni	Politecnico di Milano, Italy
Gal Kaminka	Bar Ilan University, Israel
Maria Gini	University of Minneapolis, USA
Daniele Nardi	Sapienza – Università di Roma, Italy
Pedro Lima	Institute for Systems and Robotics, Portugal
Erol Sahin	Middle East Technical University, Turkey

OptMAS 2016

Archie Chapman	University of Sydney, Australia
Pradeep Varakantham	Singapore Management University, Singapore
William Yeoh	New Mexico State University, USA
Roie Zivan	Ben-Gurion University of the Negev, Israel

IDEAS 2016

Adam Eck	University of Nebraska-Lincoln, USA
Leen-Kiat Soh	University of Nebraska-Lincoln, USA
Bo An	Nanyang Technological University, Singapore

Paul Scerri	Platypus LLC, USA
Adrian Agolino	NASA, USA

MABS 2016

Luis Antunes	University of Lisbon, Portugal
Luis Gustavo Nardin	Center for Modeling Complex Interactions, USA

EMAS 2016

Matteo Baldoni	University of Turin, Italy
Jörg P. Müller	Technische Universität Clausthal, Germany
Ingrid Nunes	Universidade Federal do Rio Grande do Sul, Brazil
Rym Zalila-Wenkstern	University of Texas at Dallas, TX, USA

ALA 2016

Daan Bloembergen	University of Liverpool, UK
Tim Brys	Vrije Universiteit Brussels, Belgium
Logan Yliniemi	University of Nevada, Reno, USA

ACAN 2016

Katsuhide Fujita	Tokyo University of Agriculture and Technology, Japan
Naoki Fukuta	Shizuoka University, Japan
Takayuki Ito	Nagoya Institute of Technology, Japan
Minjie Zhang	University of Wollongong, Australia
Quan Bai	Auckland University of Technology, New Zealand
Fenghui Ren	University of Wollongong, Australia
Chao Yu	Dalian University of Technology, China
Reyhan Aydogan	Ozyegin University, Turkey

ABMUS 2016

Pascal Perez	University of Wollongong, Australia
Lin Padgham	RMIT, Australia
Kai Nagel	Technische Universität Berlin, Germany
Ana L.C. Bazzan	Universidade Federal do Rio Grande do Sul, Brazil
Mohammad-Reza Namazi-Rad	University of Wollongong, Australia

COIN 2016, with a special joint session with CARE 2016

Samhar Mahmoud (COIN)	King's College London, UK
Stephen Crane	University of Otago, New Zealand
field (COIN)	
Fernando Koch (CARE)	Samsung Research Institute, Brazil
Tiago Primo (CARE)	Samsung Research Institute, Brazil

Andrew Koster (CARE)
Christian Guttman
(CARE)

Samsung Research Institute, Brazil
UNSW, Australia, IVBAR, and Karolinska Institute,
Sweden

WEIN 2016

Satoshi Kurihara
Hideyuki Nakashima
Akira Namatame

University of Electro-Communications, Japan
Future University-Hakodate, Japan
National Defense Academy, Japan

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